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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,330	03/28/2001	Akira Matsumoto	939_023	4237

25191 7590 02/20/2003

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EXAMINER

PATEL, TULSIDAS C

ART UNIT	PAPER NUMBER
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2839

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/819,330

Applicant(s)

MATSUMOTO ET AL.

Examiner

T. C. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *General Status*

1. This is a Final Action on the Merits. Claims 1-16, are pending in the case.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/05989 or Watanabe et al. (US 6,045,269).

WO '989 in figure 4b, discloses fiber optic array comprising a holding member 21 including a substrate with flat surface on opposite sides of a group of V-shaped grooves 22 formed therein, the outermost fiber 4a would be more than 5 times the radius of the fiber, which is of the magnitude 125 microns, and the pitch between the groove is disclosed to be 127 microns (column 16, line 42 of US reference). Grooves are 90 degree grooves (also see sketch-1 attached) and the calculated distance L is  $R \cdot \sin 45 + R$  or 106.69 microns and height of adhesive or 'Y' is 87.38 microns and therefore, value of Y satisfies the equation  $L/6 \leq Y \leq L$ . For claim 2, the amount to which the fiber protrude above the surface is the same as the thickness of the adhesive. For claims 3 and 7, the thickness relationship  $L/4 \leq Y = L$  is also satisfied with the dimensions calculated in the sketch-1. For claims 4 8, 9, the adhesive disclosed is thermo-hardening adhesive, the epoxy based adhesives are well in

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the art and it would be obvious to use the epoxy based adhesive. For claims 6 and 13-15, figure 5 discloses a step portion where covered portion of the fibers are positioned.

4. Claims 1-3, 6-7 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota et al. (US 6,195,495).

Ota et al. in figures 12 and 13, discloses fiber optic array comprising a holding member 128 with V-shaped grooves 127, the outermost fiber 4a would be more than 5 times the radius of the fiber (figure 1c), which is of the magnitude 125 microns. Grooves are 90 degree grooves (see column 6, line 42) and the calculated distance  $L$  is  $R \cdot \sin 45^\circ + R$  or 106.69 microns and height of adhesive or 'Y' is between 10-90 microns, and therefore, value of  $Y$  satisfies the equation  $L/6 \leq Y \leq L$  for most of the values of  $Y$ . For claim 2, the amount to which the fiber protrude above the surface is the same as the thickness of the adhesive. For claims 3 and 7, the thickness relationship  $L/4 \leq Y \leq L$  is also satisfied with  $Y$  dimensions above 27 microns. For claims 6 and 13-15, figure 1a, 2 disclose a step portion where covered portion of the fibers are positioned.

5. Claims 5, 10-12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/05989 or Watanabe et al. (US 6,045,269) or Ota et al. (US 6,195,495) in view of EP 943, 942.

As discussed above, WO 98/05989 or Watanabe et al. (US 6,045,269) satisfies the limitations of claims 1-4, 6-9 and 13-15 and Ota et al. satisfies the limitations of claims 1-3, 6-7 and 13-15. However, both do not disclose the width of cover plate being different than the

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holding member. EP 943 942, in figure 5, discloses cover plate being different than the holder and also discloses a step at 58. For claim 4, the selection of adhesive is a matter of design choice.

It would have been obvious to one of ordinary skill in the art to width of cover plate different than the base plate as taught by EP '942, so as to provide space for soldering the cover plate with the holder.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-16 have been considered but are not persuasive.

The Applicant cited parts of the reference, suggesting that the Watanabe reference suggests providing almost no clearance between the top and bottom members, so as to minimize the adhesive thickness. The Examiner wishes to point out that column 19, lines 25+ compares the adhesive thickness in figure 4a, versus figure 4b. The Examiner has used figure 4b for rejection (figure 4a, has almost no thickness of adhesive). The Examiner has also noted that the argument related to the overlap of adjacent grooves and therefore the flat surface would be higher than the groove peak, however, figure 4b, and does not suggest that that is the case. In addition, the overlap argument has no support in the figures or the specification and if there is an overlap, how much, would be subject to the imagination. Also, can you still satisfy pitch of 125 microns?

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. C. Patel whose telephone number is (703) 308-1736. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (703) 308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1736.



T. C. Patel  
Primary Examiner  
Art Unit 2839

tcp  
February 14, 2003